

## Patent Abstracts of Japan

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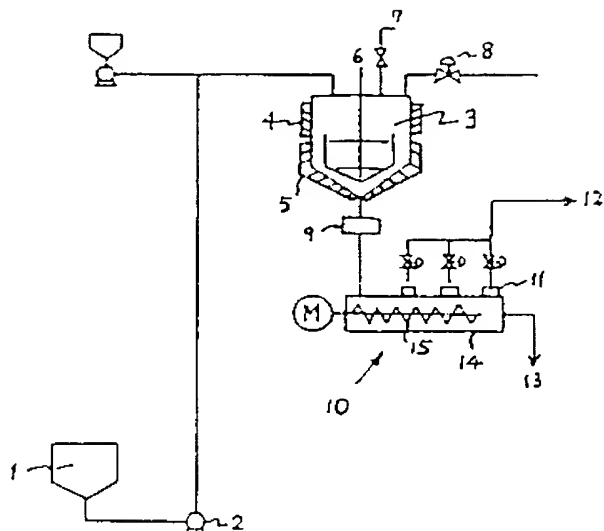
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APPLICATION NUMBER : 63200841

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TITLE : VENT TYPE EXTRUDER



**ABSTRACT :** PURPOSE: To obtain a vent type extruder capable of providing a plastic optical fiber having excellent corrosion resistance and good light transmission properties by using a metal alloy having specific Cr and Ni content and high Rockwell hardness as a material for cylinder and screw.

**CONSTITUTION:** Methyl methacrylate(MMA) purified by vacuum distillation is stored in a storage tank 1, fed to a polymerization reaction tank 3, polymerized by heating under nitrogen atmosphere introduced from a nitrogen introduction line 7 and fed to a vent type extruder 10 using a metal alloy having 10-25% Cr content and  $\leq 2\%$  Ni content and  $\geq 40$  Rockwell C scale hardness as a material for cylinder 14 and screw 15 and unreacted monomer in the polymer is removed from plural vent ports 11 by raising the temperature in the vent type extruder to 180°C in the inlet and 230°C in the extruding part and then the resultant polymer is introduced to a composite spinning machine and spun using a fluorine-containing methacrylate copolymer as a sheath component to provide the optical fiber.

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